## REMARKS

This is a full and timely response to the final Official Action mailed **July 31, 2007.** Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Request for Continued Examination:

Applicant hereby requests Continued Examination for this application and entry and consideration of this amendment consequent thereto.

Claim Status:

By the present amendment, various claims have been amended. Claims 2, 4, 7, 10-14, 21, 22, 28-36, 41, 43, 48-52, 55-61 and 68-70 have been cancelled without prejudice or disclaimer. Claims 37-39 and 62-67 were withdrawn from consideration under the imposition of an earlier Restriction Requirement and cancelled previously without prejudice or disclaimer.

Thus, claims 1, 3, 5, 6, 8, 9, 15-20, 23-27, 40, 42, 44-47, 53 and 54 are currently pending for further action.

Prior Art:

Claims 1-33 were rejected as unpatentable under 35 U.S.C. § 103(a) over the combined teachings of U.S. Patent No. 6,828,961 to Elliott et al. ("Elliott") and U.S. Patent Application Pub. No. 2003/0090597 to Katoh et al. ("Katoh"). For at least the following reasons, this rejection is respectfully traversed.

Claim 1 now recites:

> A display system for displaying an image, comprising:
> an image processing unit configured to process image data and generate a number of image sub-frames corresponding to said image data;
> a modulator configured to modulate a light beam according to said image sub-frames;
> a scrolling color device configured to scroll a plurality of colors across a face of said modulator, wherein all of said plurality of colors are present simultaneously on said face of said modulator, to produce a color light beam bearing said number of image sub-frames;
> display optics configured to display said image from said color light beam; and
> a wobbling device configured to displace said color light beam according to a cycle in which said image sub-frames are sequentially displayed in a cycle of spatially offset positions, said spatially offset positions being offset by less than a pixel width from each other;
> wherein said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames; and
> further comprising a system timing unit configured to synchronize said scrolling color device and said wobbling device such that said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to each of said number of image sub-frames.

(Emphasis added).

Support for the amendment to claim 1 can be found in Applicant's originally filed specification at, for example, paragraphs 0020, 0048, 0053 and 0059, and Figs. 2, 5 and 10.

In contrast, the combination of Elliott and Katoh clearly fails to teach or suggest this subject matter. Specifically, the cited prior art does not teach or suggest the combination of a scrolling color device that produces a plurality of colors present simultaneously on the face of a modulator, "a wobbling device configured to displace said color light beam according to a cycle in which said image sub-frames are sequentially displayed in a cycle of spatially offset positions, said spatially offset positions being offset by less than a pixel width from each other," and "a system timing unit configured to synchronize said scrolling color device and said wobbling device such that said scrolling color device scrolls said plurality of colors

across said face of said modulator an integer number of times during an image sub-frame time period corresponding to each of said number of image sub-frames."

Under the analysis required by *Graham v. John Deere*, 383 U.S. 1 (1966), the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue. In the present instance, the scope and content of the prior art, as evidenced by Elliot and Katoh, clearly did not include the display system of claim 1. Elliott and Katoh, taken together, fail to teach or suggest both the claimed scrolling color device "wherein all of said plurality of colors are present simultaneously on said face of said modulator" and the system timing unit that provides synchronization between the scrolling color device and a wobbling device.

These differences between the claimed subject matter and the cited prior art are significant because, as explain in Applicant's specification, the claimed display system, especially with the system timing unit, enables "scrolling color, resolution enhancement, and pixel error hiding in the same display system." (Applicant's specification, paragraph 0059). This advantage was apparently unavailable in the cited prior art.

For at least these reasons, Elliot and Katoh cannot support a rejection of claim 1 and its dependent claims under 35 U.S.C. § 103(a) and *Graham*. Therefore, the rejection of claim 1 and its dependent claims should be reconsidered and withdrawn.

Claims 34-36, 40-61 and 68-70 were rejected under 35 U.S.C. § 103(a) over the combined teachings of U.S. Patent No. 6,771,325 to Dewald et al. ("Dewald"). For at least the following reasons, this rejection is respectfully traversed.

Claim 40 now recites:

> A method of displaying an image, said method comprising:
> processing image data defining said image and generating a number of image sub-frames corresponding to said image data;
> generating a light beam bearing said number of image sub-frames with a modulator;
> scrolling a plurality of primary colors across a face of said modulator during said generation of said light beam such that said light beam comprises a color light beam bearing said number of image sub-frames, wherein a band of each of said primary colors is incident simultaneously on said face of said modulator during said scrolling;
> displaying said color light beam to form said image;
> displacing said color light beam such that each of said number of image sub-frames is sequentially displayed in one of a cycle of image sub-frame locations, each of which is spatially offset from others of said image sub-frame locations; and
> *synchronizing said scrolling of said plurality of primary colors across said face of said modulator with said displacing of said color light beam such that said plurality of colors scroll across said face of said modulator an integer number of times during an image sub-frame time period corresponding to each of said number of image sub-frames*.

(Emphasis added).

Support for the amendment to claim 40 can be found in Applicant's originally filed specification at, for example, paragraphs 0020, 0048, 0053 and 0059, and Figs. 2, 5 and 10.

In contrast, the cited prior art fails to teach or suggest the method of claim 40. Katoh does not teach or suggest "displacing said color light beam such that each of said number of image sub-frames is sequentially displayed in one of a cycle of image sub-frame locations, each of which is spatially offset from others of said image sub-frame locations." Katoh further does not teach or suggest "synchronizing said scrolling of said plurality of primary colors across said face of said modulator with said displaying of said color light beam such that said plurality of colors scroll across said face of said modulator an integer number of times during an image sub-frame time period corresponding to each of said number of image sub-frame."

Dewald is cited only for teachings relevant to scrolling a plurality of primary colors on the face of a modulator. (Action of 7/31/07, p. 10). Dewald, like Katoh, does not teach or suggest, and is not relevant to, (1) the claimed displacing of a color light beam in a cyclic pattern to enhance image resolution or (2) the claimed synchronizing of scrolling primary colors on a modulator with spatially displacement of the color light beam according to a cycle of sub-frame locations.

Under the analysis required by *Graham v. John Deere*, 383 U.S. 1 (1966) to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the claimed method, including the combination of scrolling a plurality of primary colors across the face of a modulator, displacing a color light beam through a cycle of image sub-frame locations and synchronizing the scrolling and displacing, is clearly outside the scope and content of the prior art evidenced by Dewald and Katoh.

These differences between the claimed subject matter and the cited prior art are significant because, as explain in Applicant's specification, the claimed method, especially with the synchronizing of color scrolling and light beam displacement, enables "scrolling color, resolution enhancement, and pixel error hiding in the same display system." (Applicant's specification, paragraph 0059). This advantage was apparently unavailable in the cited prior art.

For at least these reasons, Elliot and Katoh cannot support a rejection of claim 40 and its dependent claims under 35 U.S.C. § 103(a) and *Graham*. Therefore, the rejection of claim 40 and its dependent claims should be reconsidered and withdrawn.

Double Patenting:

The final Office Action also made a number of rejections of Applicant's claims under the judicially-created doctrine of obviousness type double patenting. Specifically,

(1) Claims 1-33 were rejected under double patenting in view of claims 1-74 of in view of U.S. Patent No. 7,086,736 to Collins et al. ("Collins").

(2) Claims 34-36, 40-61 and 68-70 were rejected under double patenting in view of claims 1-74 of Collins in combination with Dewald.

(3) Claims 1-33 were rejected under double patenting in view of claims 1-31 of U.S. Patent No. 6,984,040 to Childers ("Childers").

(4) Claims 34-36, 40-61 and 68-70 were rejected under double patenting in view of claim 26 of Childers in view of Dewald. For at least the following reasons, these rejections are respectfully traversed.

As noted above, the remaining independent claims, 1 and 40, have been amended such that the cited prior art does not teach or suggest the now-claimed subject matter. Applicant believes that these amendments also clearly distinguish the claims from those of Collins and Childers. Consequently, following entry of the present amendment, Applicant believes the various double patenting rejections made in the final Office Action will clearly no longer apply. Notice to this effect is respectfully requested.

Conclusion:

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

DATE: September 28, 2007

Steven L. Nichols
Registration No. 40,326

Steven L. Nichols, Esq.
Managing Partner, Utah Office
**Rader Fishman & Grauer PLLC**
River Park Corporate Center One
10653 S. River Front Parkway, Suite 150
South Jordan, Utah 84095

(801) 572-8066
(801) 572-7666 (fax)

**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being transmitted to the Patent and Trademark Office facsimile number 571-273-8300 on September 28, 2007. Number of Pages: 23

Rebecca R. Schow